Beach-Head and sweatshirts from 1.

Software reviews for: spectrum. commodore 64, Dragon, B8C Sord, T1-99/4A

Great games to type in for: Commodore 64, Oric/Atmos,

VIC-20,
BBC/Electron

## Plus

news, U.S. Scene,
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## REGULARS

News ..... 5,6
U.S. Gold compettition ..... 23
Win a chart-topping game and an American sweat-shirt
Software eharts ..... 27
Our exclusive guide to best-selling arcade and non-arcade software,plus Top 10s for six home computers
U.S. Scene ..... 15
Our man reports from California
setters ..... 21Your letter could win free software
Elassified ads start on ..... 35
PROGRAMS

## vic-20

A white racing car is heading for you at breakneck speed. Can you save yourself?

## Commodore 8

11Watch out as you guide a snake about - you've got just 30 seconds in this fast and furious game

## Oric/Atmos

21Attack of the marshmallows - a game with a moral to it: take care of your teeth!

## BBC/Electron

How many rodents are there? A game to develop chidren's numerical skills


## 2X USER

Another FREE magazine for users of the Spectrum and the ZX81. Here's a taste of what's in this issue:

- Spectrum software reviews - all that's new
- can you beat your Spectrum in our game of logic?
- how to throw your voice and control your Spectrum
- chess game for the ZX81

There is a full list of the contents on page three of your 16-page ZX User

There's more ..... 10
Games for the Dragon, Sord M5 and TI-99/4A
Games, games and more games ..... 14
Action-packed arcade games for Dragon, Tl-99/4A and Sord M5
Kaleldoseope of games ..... 18
...for the Commodore (64, BBC and Sord M5Talke your micro seriously30Utilities for the Spectrum, Dragon, BBC and CBM 64

Ethor Paul Lipirot Assistant Editor: Liz Graham Designer: Bryan Pitchford

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## Watch out, Europe!

Sinclair is soon to hit Europe. The company has plans to establish operations in Frankfurt, West Germany in June, and Paris, France in the autumn. This is the first step for Sinclais into the European computer market. The company is concentrating on implementing local language software, which Sinclair believes is crucial to success.

Charles Cotton, Sinclair's overseas business manager, said: "Our strategy aims to consolidate our leading position in the European markets and increase both our sales and market share:"
Sinclair is also doing very well back home, according to a report by independent market research company Audits of Great Britain (AGB) who surveyed 25,000 households.
Sinclair reportedly scooped 43 per cent of the market for the first quarter 1984. Total Sinclair quarterly sajes through all outiets was 215,000 with the Spectrum remaining the most popular model and taking a 36 per cent share.
AGB's findings are also mirrored by the latest Gallup Marketing Direction quarterly survey of 10,000 people over the age of 16 in the UK. The total Sinclair base now stands at 2.35 million units, which is 10.7 per cent houschold penetration. Sinclair Research, 28 Stanhope Rd, Camberley, Surrey

## Briefly

Cityfighter has now been converted for the Commodore 64. The game, from Choice in Northern Ireland, now has additional extra features. These are music while loading, a demo, and the possibility to use either joystick port. Price: £6.95.
Choice, Choice Buildings, 75 Belfast Rd, Carrickfergus BT38 BPH, $N$ Ireland

ㅁㅁ
Hewson Consultants has adapted its 3D Lunatlack for the Dragon 32. This makes the Seiddab series complete for the Dragon, and the Spectrum version of 3D Lunattack is reportedly the most successfui of its trilogy. Hewson has also modified its Heathrow ATC for the Commodore, and added extra features, such as Concorde landing. Both games cost $£ 7.95$.
Hewson Consuttants, $56 b$ Milton Trading Est, Mitton, Abingdon, Oxon OXI4 4RX

## Queve

From front page
And Mr King, who has been with Rumbelows for 12 years, said the fact that the computer included a monitor was a big selling point - buyers did not need the use of the family TV.

He reckoned that every buyer, some from as far away as Cheshire, also left with two items of software.
Container ships are on the way from Korea with more supplics for Rumbelows, Dixons, Boots, Comet and mail order houses.

Amstrad's sales director Dickie Mould said: "The initial interest at the time of the launch was, perhaps, prediciable. Bul this level has been maintained and I am called every day by retailers who want 10 be supplied.
"Our initial run of 200,000 units for 1984 is already underwritten by our nominated stockists and we are urgently reassessing our budgets for 1985, when we anticipate bringing in 600,000 units."

- The first Amstrad peripheral will be a dot matrix printer, made by Scikosha and costing £199.

Amsirad Consumer Electronics, 169 Kind's Rd, Brentwood, Essex CMIS 4EF

## Pircacy

## From front page

Member companies include: IBM, Hewlett-Packard, W. H, Smith, Virgin Games and Websters, the software distributors.

FAST hopes to have the same legal success as the Federation Against Copyright Theft, sel up by the video industry.

Ranald Robertson, a member of FAST's management group. said that as well as pressing for legislative change, FAST wanted to publicise the legal protection that already existed.

Mr Robertson is the legal advisor to the CAP group, which specialises in business systems, and he said business software was also being hit, particularly by lookalikes.
Clive Digby-Jones, secretary of the Guild of Software Distributors and managing director of Websters, said: "We want to make people aware that if piracy goes on it will reduce the amount of new and good software."

Federation Against Software Theft, Chancery House, Chancery Lane, London WC2A IQU


First in the queue - Victor Harris, of Swanley, Kent, leaves Rumbelows with his Amsirad computer

## You could be on our pages

We welcome programs, articles and tips from our readers. If you feel that your work meets our standards, please submit it to us for consideration for publication.

- Programs must always be sent on cassette. Listings are helpful, but not necessary. Check carefully that they are bug-free. include detalis of what your program does, how it works, variables you have used and hints on conversion.
- Articles on using home computers should be no longer than 2,000 words. Don't worry about your writing ability - Just try to keep to the style in HCW. Articles most likely to be published will help our readers make better use of their micros by giving useful Ideas, possibly with programming examples. We will convert any sketched illustrations into finished artwork.
- Tips are short articles, and brics programming routines. Your hints can aid other computer users.
All submissions will be acknowiedged and the copyright in such works which will pass to Argus Specialist Publications Ltd will be paid for at competitive rates.
Keep a copy of your work and include an SAE. Label everything clearly and give a daytime
and home phone number if you can.
All work for consideration should be sent to:
Paul Liptrot, Home Computing Weekly,
No. 1 Golden Square, London W1R 3AB


## NEWS

## Ads on your screen

This is Ofympics year, as we all know. Although the Olympics may be suffering major problems, the computer games based on the Olympics are doing very nicely, thank you.

Now, when you simulate the track scenes on your micro, the atmosphere may seem that much more realistic. Miero Olympics from Database now carries advertising, just as you see on your TV screen when you watch the athletics.
Database has accepted advertising from software houses and while you are striving to compete with the computer, you will see famous names on the hoardings.

Micro Olympics runs on the BBC and Electron. As you compete, you will be striving to better the world record, which the computer achieves each time. Database claims that the program is accurate in the times and distances, ranging from the 100 metres to the hammer throw. Price: $£ 5.95$.
Database, Publications, Europo Hse, 68 Chester Rd, Hazel Grove, Stockport SK7 5NY

## Can Kanga win?

Here's a game from down under - well, at least the idea is. It's Kosmic Kanga from Micromania. Now out in the shops, it's a multi-screen arcade-style action game, in which Kanga leaps about scoring points by bouncing on bonuses. Our Kanga throws a good punch 100 , and he scores points by throwing them at the enemy.
Kosmic Kanga features scrolling animated graphics and over 40 different types of bonuses and enemies.
Available now for the 48 K Spectrum at £5.95, the Commodore 64 version will soon be out too.
Micromania, /4 Lower Hill Rd, Surney, KTI9 8LT

## Make use of your micro

Moder-80 is now out for the Spectrum. The package includes an "easy to use" minjassembler and a disassembler. Seven Stars claims it's Micro-drive-compatible and provides

## TWO ESSENTIAL UTILITIES FOR THE COMMODORE 64

GET THE MOST FROM YOUR DATASETTE WITH HYPERSAVE 64
ONCE HYPERSAVED, YOUR PROGRAMS (BASIC OR MACHINE CODE WILL INDEPENDENTLY RELOAD AT TEN TIMES THE NORMAL RATE, NO MORE TEDIOUS WAITING!! THIS IS FASTER THAN THE COMMODORE DISC DRIVE! FULL INSTRUCTIONS ARE PROVIDED TO CONVERT YOUR EXISTING SOFTWARE, EACH HYPERSAVED PROGRAM IS COMPLETELY SELF CONTAINED NOTHING TO PRELOAD. IT WORKS WITH YOUR LONGEST PROGRAMS (UP TO 48 K , AND IS SUTTABLE FOR ALL PROGRAM TYPES, CASSETTE...
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## 64-BACKUP

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E3.50
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## FAST DESPATCH GUARANTEED. CHEQUE/P.O. OR SAE TO:

DOSOFT, 2 OAKMOOR AVENUE, BLACKPOOL FYZ OEE
low and high memory versions for co-resident use with a symbolic assembler. It also features a single step (trace) mode with a disassembly.

The disassembler can output to screen or printer, according to Seven Stars, and the nonsymbolic assembler accepts all standard 280 mnemonics plus DEFB, DEFW and DEFW for strings and data. It can also handle decimals, hex and ASCII in simple expressions.

The package comes with a manual and costs $£ 6.95$.
Seven Stars, 15 Gloucester Av, London NWI 7AU

## Briefly

Enter the death race which spans the four seasons in Audiogenic's Burnin' Rubber for the Commodore 64. You're a tough character: your one aim in life is to run all other competitors off the track. Your opponents are as ruthless as you are - you must face the indestructible Tank Cars and cunning Deathmobiles. If you're quick enough, you can fly over obstacles. Cost: $£ 6.95$.

Audiogenic, PO Box 88, Reading. Berks

## Our winners

There were eight differences in our Vortex competition.

These are our 45 winners: Tony De Palme, Brockler: Mt W T Sillence, Herts, Mr ME Lincoln. Meregsidey Colin Sheldrake, WallingIon: Gary Bird, Newport; Bryan Greenhail. Manchester: Jonalhun Lumn, Wakefield: Keven Jackson, Wills; $\mathbf{V}$ P Wakefikid; Keven Jackson, whiss; Merseyside; D Nash. Grays: Steven Cox, Merseyside; D Nash, Grays; Steven CoK,
Shrops; Dennis Richards, London N4; Shrops; Dennis Richards, London Na;
Mr P Hughes, Cheslise; Mr R Lines, Mirmingham; Mr J Lancaster, Midlothian: G Shackleton, W, Yorks; Tim Prince, Cumbrik: Simon Websier, Cambs: Edward Whisthouse, W. Mids Mr French. Nosthampton: Neil Robinson, W. Yorks5 Michuel Shepherd, Northumberland: Martin Burgess, W. Yorks; Duncta Murray, Cieveland; Mr T A Smith. Tyne \& Werr: M Keelon, A Smish, Tyme Maherry Molin; David Doncascr, Alan Mahon, Dublin; David Coyne, Middlesex; Julian Kilburn, N:
Yorksi Seephen I Gray, Litle Haywood; Yorksi Stephen I Gray, Liule Haywood;
Mark Pspperrell, Feltham; Kevin Mark Pepperrell, Felthant; Katin, Abingdoni Kevin A Mulrennan, Smail Heath; C F Kirby-Smith, Bexteynealh; Jon Skipper, Norfolk; Mr TM D Russel, Warminsler: A Rose, Humbs: Ms C Dolan, Middx; Steren Ashion, Merseyside: Inderprit Siogh Johal. London E12: Steve Amolot, Worcestershire: Peter Fernandes, 11ford; Rpna Williams, Upminster.

## More Winners

Here's the solution to our Scisoft wordsquare competition. Horizontal words: Star Reader, Wizard Bot, Chemistry. Vertical words: Astromaths, Computer Studies, Diagonal word: Maths part I.

The 70 winners of two Scisoft titles are: Mr I Wen, Grenter

Manchester, Julie Dawson, lpswich; Amanda Wilkinson, Adel Leeds; Mark Adkin, Surrey; Andrew Ellis, W. Yorks; Robert G Lane, Brighton: Gavin Alston, Scotlands william Durning Glasgow Scotland: William Duming Glasgow
Marcus Prescoli, Bufton-an-Jrent; K W Marcus Prescols, Bufion-an-Trent: K W
Cerf, Clwydi Si mrendu Singh, Kmi; Curf, Clwyd; Si mrendu Singh, Kenl;
Nicholes Prosser, Suffolk; Mr N P Powley, Norfolk; Mark Jones, Stheffield; Norman Parkes, Burnley; \$ \$ Bates, Basingstoke; K Chum, Birmingham; Mrs覀 Butler, Liverpool; H Zuchawska, Birminghum; K Jenkinson, Oxpa; Shaun Davis, Kent: Sieven Neath Eristol; Calum, Mredougatl, Argyll; Me G R Hymes, Northents; M P Bouton, Hull; Wendy Smith. Walsolif Mr M Let, Hands, Marie McNally, Cavershamis S Fifer, Enficld: F Zawislouski, Avon: Fifer, Enficld, W. Yorks Jumes Hurd, W
Anne Wylke, W. Yor Anne wyke, W, Yorks; Jmes Rurd, w, Slamp, Wilts; John Coldbreath, Hants: Mrs M Barrelt. Cambs; Richard Tester W. Sussex: Chris Hall, N, Ireland: J McKeller Main, Refford: T French, Hants; Yvonne Wesc, Abstdeen; Tracey Gooth. Hubs: Kim Yarwood, Herts; Kathy Seldon, Sandyi Brion Morris, Rochodate; P R Taylor, Rimmingham; Neil Thornhill, Swansew: Mrs C E Graltage, Stoke-on-Trent: Miss I Patet, Birming, Stoke-on-Trent: Miss Pate, Borming
ham: Mr C Crane, Staff: Tony hami Mr C Crane, Stais, Byled; Mr D Simith, Berkshire Raven, Dyled; Mr D Sittith, Berkshire
Liva Skelton, Warwicks; I Alba Loodon; Paul Kelly, Hornchurch; Mr A Isaker, Pecerborouph; E Roberts, Leies: Simon Cmmpbell. Harrow: Mr M Hillier, Wilrs David Blancy, N. Irelands Russen Perrson, Nr, Ircland: Mr ? Foster, Kents Euath Pearson, Scolland; Martin Earwicker, W, Suscex: I Oroont hridee, Camb; Kiaren Haggerly, North. oridec, Camberiand; Siephen Fortune, Wilis; I D McNeill, Glasgow; Berandette Brick. McNe
Cork.

## And even more...

There were nine differences in our Abrasco competition.

These are the 70 winners who will each receive two tapes from Abrasco's range: Pasil Almond. Cheshire; SSGT James, BFPO 15; Jame Mckillop, Norwich; Mr M I Symonds N. Yorks; Curesh Jumes, BFPO 15; Mrs P Herris, Kens; Richard Morkey, Detby: Sanjiv Abeysinghe, Pentei Frank Worley, Old Portsmouth; J Durkan, Aberdecnshite; K W Cerr, Rhyl; Mark Ansdell, Kent; Lawtence, Tyne \& Wear; 8 Williamson. Kincardineshire; James Blair, Lancnshire: Mr M J Fuller Romford: Mrs L. Scares, Maidenhesd; L R Whitmarsh, Harlow; Steve Wood Bradford: Kathleen Armsirong E Lothisn: Mr A N Smith, Bolton; Mr NC Short, Durkinfiled: Guramkh Nijjar, W Yorks; Mr M Baker, Enfield; Darren Laskey, Romford; Mrs C Cawte, Hants: Laskey, Romiord; Mirs Scawie, Hams, David Muir, Ayrshire; Simn Ginderton,
Cheshire: Mr A Bryson, E, Kilbride: Cheshire; Mr A Bryson, E. Kilbride;
Miss \& Amlani, London NW4; Michacl Rhead, Heris; L Young, Sevenoaks: Thomas P Kilroy, Ballina, Co, Weyo Marc Walby, Pontypool; John Bourne, W. Midlands: Tony Crump, Halesowen: Mr P Hendy, Leicestershire; Mz M C Davies, Parkstone; Paul Ansell. London Es; Mr M Roberls, Deeside; PK Nurser Farcham: A Winner, Castledawson: Jonathan Gray, Norfolk; Andrew Noel Smith, Birmingham; A P Gerrard, Herts: M Menzies, Co Durham; David Blunden, M. Menzies, Co Durham; David Btunden, S. Yorks: Kevin Maloney, Co Down;
Mrs K Walton, Cheshire: David Edge. Mrs K Walton, Cheshire; David Edge,
W Yorks: Robert D Oakes, Heris; K L W. Yorks: Robert D Oakes, Heris; Kel
Sumbler, Herts; Mr M Usher, Edgeley; Mr G A Gowan, Stevenage; Miss N Burrows, Lancs; E Bailes, Harlow: Mr C Dolan, Middr: Jason Taylor, Coventty: J K Lenihan, Dorser; S Long, Abbeydale; F E W Jugg, Cambridge; Lain Redmore, Huntingdon; 日 Wallon, Tync \& Wear, Mr M Payme, Hull; N Ahuja. Middlesex: Simon Teague, Eastbournei Muddesex; stmon Teague, Eastbotarne; Toton: S R Hulme, Cheshire; Alan Toton: S R H.
Hawells, Clwyd.

## SHOCK Horion SCANDAL

SHOK CITYATTAK. The seven screen, all action, OHOUN: machine code game. Superb graphics,
smooth game play, a tough challenge for even the hardened arcade action addict.
Now available on disk.
HORRR1 The journey of your life . . or death! ODYSSEY. Described by
Popular Computing Weekly as: 'Addictive with superb sound effects. An arcade game worthy of Jeff Minter for its pure speed of action!' Pick of the week (12th-18th April 1984). Now available on disk.

## SCANDALITSonly ROCKN'ROLL.

Your chance to succeed where millions of hopefuls fade. To make the big time in 'Showbiz' and show the world that you're a superstar, not just another dreamer.
Now available on disk.


## VIC-20

Get in gear and under starter's orders for an exciting race! You are the driver of a racing car lapping a circuit. You must eat up all the white dots as you zoom around in top gear.

Kecp alert - white car is completing circuits in the opposite direction to you. You must avoid collision.

## v volume

## Vertatles

s1, 13 noise regislers
H score
w men left
L. position of car 1 or 2, decides which car
CV amount added to POKE colour

The game gets trickier once you have eaten up the dots. You move on to the next screen. The hazards are greater here as the white car has accelerated and is heading for you at an incredible speed!

This is a game to hone down your reactions to a fine edge. Thinking and acting must be instantancous. Get ready to go!

## How it works <br> 10-20 instructions

21-148 set up screen
150-212 main program
215-231 see if screen is cleared
1000-1020 print score and men
left on screen
10s0k1100 priat score and men during game
1200-1280 set up user delined graphics


4 REM[CLR]
5 PRINT" ${ }^{2}$ : PUKE45,212:POKE46,25:FOKE47,212:POKE48,25:POKE49,212:POK ESO, 25:POKE51 - 0:POKE52,28

EFOKE5S, D:POKESE, 28:POKE $36869,255: D I M O L(2), D(2), C(2), D L(2), F(3): V=36878: 51=V-4$ 8 GOSUB1225
10 IFHDX\%THEN $\%=H$
11 POKEV+1, 27: PRINT"JFARSCORE: "H" RREC: "X\%: H=0
12 POKE36869,240

15 PRINT"期DSE": PRINT"EJ TO MOVE INWRRDS"
17 PRINT"K TO MOVE OUTWARDS":FRINT "A TO ACCELERATE": FRINT"D TO SLOW IOLWN"
18 PRINT"rARMAHIT ANY KEY TO START":PRINT"MNHIT N IF YOU DO NOT WRNT ANOTHER GO
."

20 IFA
21 POKE36869,255

$110 \mathrm{CV}=30720: \mathrm{DO}=46: \mathrm{AS}=42: 0=1: T=22: M 0=-1: M T=-22: \mathrm{A}(1)=75: \mathrm{A}(3)=74: \mathrm{C}=3: \mathrm{R}=1: 27=10: 21=$ 72: $7=3$
 $\mathrm{XT}: \mathrm{G}=\mathrm{O}$

## ROGRAM


140 PRINT：P＝3：FORI＝4T012STEP2：G0SUB16日D：NEXT
142 W $=7703: F O R I=7 T O 1 S T E P-2: F O R J=W T O W+I S T E P 2: P O K E J, 46: P O K E J+I+6,46: N E X T: W=W+45: N E$ XTI
 ＋45：NEXT
$146 \mathrm{~W}=8121: F O R I=8 T 02 S T E P-2: F O R J=W T O W-I * 22+225 T E P-44: P O K E J, 46: P O K E J+2 * I+3,4 E: N E: T$
W＝W－42 ：NEXTI
$148 W=8121 ; F O R I=7 T O 1 S T E P-2: F G R J=1 \& T O W+I S T E P 2: P O K E J, 46: P O K E J+I+6,46: N E X T: W=W-42: N E$
XTI ：W＝2：F：32：G0SUB1109
$150 \mathrm{C}(0)=40: C(W)=41: L(0)=7964: L(W)=8130: C L(0)=3: C L(W)=1: 2=202: F 0 R K=1 T 02: F 0 K E L(K)$ ＋CV，CL KK
151 POKEL（K），$C(K): Q(K)=0: O L(K)=P: N E X T: F=0-\langle R\rangle W)$ 糔：$D(0)=M T: D(W)=M O: S=0: M=-(R\rangle W): I$ FCS1THEN10
152 POKEV，Z7：FORK＝MTOF：$J=\langle I N T\{K / W\rangle=K / W\rangle+2: P O K E S 1, Z: L=L\langle J): D=D(J): I F J=0 T H E N 1 G G$
$155 Q=5 G N(Q(0)-Q(W))+W: F=A(Q): O N Q G O T 0190,200,190$

162 IF $\vec{F}=68$ THENF $=0-\langle R\rangle(W)$ 糔 $: M=-(R\rangle W): Z=202$

 TL－L


$200 \mathrm{NL}=\mathrm{L}+\mathrm{D}: \mathrm{N}=\mathrm{FEEK}(\mathrm{NL}):$ IFN＝PTHEN215
201 IFNCYDOTHEN208
292 IF J＝0THENH $=\mathrm{H}+5-$（R）3）＊5：G0SUB1059：POKES1， 250 ： $60 T 0215$
203 IFG） 69 RNDRND（D） $3.59 N D R>1$ THENN $=218$
204 G0T0215
208 IFN $=218$ THENFOKES1． $240: \mathrm{H}=\mathrm{H}+25$ ：GOSUB1050：G0T0215
209 IFN $=C(Y-J)$ THEN215
 ตЙ
215 IFN $=C(Y-J)$ THENGOSUB1209：GOTO150
$215 \mathrm{POKEL}, \mathrm{OL}(J): Q L(J)=N: L(J)=N L: \operatorname{FOKEL}(J), C(J): P O K E L(J)+C V, C L(J): N E X T K: I F G<Z 1 T H E N$ 152
 $+1$
231 FORI＝1 T099：POKES1，240：POKES1，220：MEXT：POKEV， $0: G 0 T 0120$



1015 FRINTMID
 F $\$$ \＄，12－I）＂1F＂；：RETURN
$1950 \mathrm{G}=\mathrm{G}+0: \mathrm{N}=\mathrm{P}$
 ）：RETURN


RN
1225 FORK $=1$ TO13：READX：FORI＝OTOT：RERDR：POKEX +1 ，A：NEXT ：NEKT
1230 FORI $=7552$ TO 6331 ： $\operatorname{POKEI}$ ，PEEK（ $\mathrm{I}+25609$ ）：NEXT
1235 FORI $=$＝ 176 TO7383：POKEI，PEEK（ $I+25606$ ）：NEKT ：RETURN
1260 DATA $7488,90,90,90,24,24,90,90,99$
1262 DATA $7496,0,231,66,255,255,66,231,0$
1264 DATA $408,8,8,8,8,8,8,8,8$
1265 DATA $416,0,0,0,0,255,0,0,0$
1268 IATAP $448,0,0,0,0,15,8,8,8$
1270 IATAT4S6， $0,0,0,0,248,8,8,8$
1272 DคTAT472，8，8，8，8，248，0，0，0 0
1274 DATA $464,8,8,8,8,15,0,0,0$
1275 DATA $7520,238,170,174,172,234,0,0,0$
1278 DATA $7528,224,128,224,128,224,0,0,0$
1282 DATA $7512,238,136,232,40,238,0,0,0$
1284 DATAT536， $0,0,0,0,0,24,24,0$
1286 DATA $424,0,0,0,0,0,0,0,9$

# Mission XK1 Dragon 32 E6.95 

J. Morrison (Micros), 2 Glens- dale St, Leeds LS9 9JJ

The first thing you notice abou: thif geme is the starting music which, although well done. sounds two octaves too low.
It is a version of the space rescue game and you must leave the mothership, dodge the meteor shower and fand on the lunar surface. Unfortunately, there are no men to rescue is this version and the purpose of your mission ls to collect fuet from underneath the planet's surface instead. Then on the return journcy you have the option to dodge or thool at the meteor shower before you dock with the

## mothership agasn.

That is really all there is to this game and I feet in lacks the enchantment that makes some games compulsive. You have the option of joystick as keyboard control and whilst both are responsive I found the joystick to be easir.
The difficult part of the game it the docking, which is made so by the strall ares you have to sim for. Fer from making the game more exciting 1 found this detracied from the game's appeal.
instructions
prayability
graphics
20*
value for money

## Cuber Dragon 32 E8

Tom Mix, 4] Truro Rd, St Austell, Cornwall PL25 5 JE

A machine code arcade pame in which you muss help Cuber hop on to each of 28 cubes forming a pyramid to change them into the pyramired colour.
Coloured balls bounce down the sereen end the effeet they have depends on their colour. If a blue ball reaches the bottom it turns into I viper which moves at random. Landing on this desiroys one of your three lives. There is also a nasty plece of work calied a Dork which descends at random and changes the cubes back to their original colour. Landins on this creature
gives your a handy bonus score. There are dises alongside the pyramid onto which you can jump and these are safe zones.
Three levels of play; at the sart yous are shown graphically what to avoid and what is benericial. There is a short display of Cuber hopping arourd - mini pyramid.

The instructions on the insert explain the game compretensively. Screen display is good. Londing was slow but caused no problems. An entertainung and amusing stme.
J.E.M.
Instructions ..... 80\%

alayability
value for money

## Crash-Up Car Racing Tl-99/4A E7

DEJ, from Sutintess, 10 Alstone 4 Rd, Stockport, Cheihire SK 4 SAH

TI BASIC rarely lends ifself to car-race games because of its slow executton speed and poor response to keyboard or jaystick sapul. This program makes a valiant attempt to imitate treade: qually graphies tote alus, fails, miserably.

You can race against another player of the computer. The graphics display takes quite a lime to sel up, and hus to be redrawn afiet every completed game. You car select 1 to 99 laps, accelerate and decelerate and speed and fuel are indicated on sereen, albeit rather unclearly.
There are four reserve cars at your disposal; you will need them as it is easy to crasl) on the bends. There is a pit area in which you can stop, although if driving against the computer this will reduce your chance of wirning to zero, You can even sipecify the efficiency of your pit crew.

The documentation makes this program appear more special than it is, and unfortunately this contributes to the overall impression that this is definitel $\checkmark$ not value for money.

## ilinstructions

playability
:Sraphics
1 value for money P.B.

## Tukom's Kingdom TI-99/AR ع

Stwiniess, 10 Alstone Road, Stockport, Cheshire SK4 SAH If this arcade/adventure game you take the fole of a knigbt from Nige on a quest for the Great Stone, stolen by the zolk Mansters.
The lirss screen is a maze, with - Jump Spell, door, key and monster. You must collect the key before going through the door at the bottom of the screth. If you get the Jump Spell (by tanding on a enpital S pear the bottom of the maze) you can jump to a random place to the
maze. This wition can be carried out only once each time the sperl is gained.
Unfortunately there is in bug: he monster tometimes moves over the spell, dearing it from the screen.
In screen two, you enter the dart forex. The only difference from the maze is that the forest has trees, not walls, randomily placed around the sereen.
There ase many other screens; throughout, your weapen of defence is yours sword.

## instructions <br> playability

graphics
value for money
J. 3.

7003
50

## Bomboral Sord MS E5.95

CGL, CGL Hse, Coidings Hill Loughton, Essex IG10 2RR
You are the pilot of a plane which is running out of fuel. Your height is deereasing whith each pass scross the screen. To land safely you must fatten the buildings by bombing them.
You've probably realised this is an M5 wersion of that classic arcade game. Although the program is written in BASIC-1, the tound is salisisyingly different, the plane looks like a plane and it numbles across the screen Is It should.
The action is relatively fast and I found the game fun, th least for the firsi few goes. Niee features such is a neat tiale page, instructions and warious skili levels show that quite a bit of thought has gone into the design but ultimately it must be stid that this is the type of game published in magazines within Iwo wecks of a new machine's launch. It would never be sold commercially for the more popular machines.
It is sad this isn't the case with the MS and you must fork out E5. 95 for it rather simple, pure BASIC game imstead of just typing it in.

| instruclions | Nos |
| :--- | :--- |
| playabiliy | graphics |
| value for money | $70 \%$ | playability

graphics
value for money
<

## COMMOFOस्रि 04 PROCFAM

## 1 How it works

 deares，set 10 black， define variables2 check for high score
3 set sfart score
it－12 define variables for each
segment positun of snake
13－200 tirle screen，options
210－240 draw screen bordtr
$\mathbf{2 5 0 . 2 4 0}$ prace snake on screen
261－264 print obstacles
268－269 set up varjables for number of pills
270－290 randomy position pills 291 start tumer
295.330 delect keys

3，11－380 move snake and detect pills or crashes
I010－1280 insiructions
3970－5020 sound effects

Snaker，as the name suggests， involves moving a snake around the screen，eatmg pils and avoudug everythung else

There＇s a 30 －second time limut to clear each screen and there are more and more pills to each and every screen．

Scoring is on screen and a record is kept of the high score， which is displayed on the title screen．Full anstructions are also nctuded in the program．

－We thave inserted REMs in the program as a guide to the Commodore control characters． These need not be entered．

## Fann in

D direction of snake
HI high score
se high score
A9 to A9 postiton of each segment of srake
PL number of pills on screen
G number of pills remaining to complete screen
TIS amount of lime remaising 10 complete screen

You＇ve got just 30 seconds to clear the screen in this fast and furious game by Eric Liddell for the Commodore 64

[^1]
## COMMODORE 64 PROGRAM

```
26@ PQKE H7,81:POKEFE,81 POKEF9,32
```






```
258 FL=0
269 0%=5+5
270 FOR I=1 TO G. X=INT(PND(1)*9日G)+41
```



```
290 POKE 1103+ふ,ళ' POKE 1103+X+Z, 1:NEXT
2*1 TI$="G00@\ด" 50T! 379
2S GET R*
300 IF R主="E"THEN P=-45
```



```
S20 IF R$="S"THEN P=-1
330 IF R来="0"THEN P=1
331 POKE 54296,1
```



```
343 KEM [RED]
350 IF PEEK(A0)=87 THEN SCxSC+10 FRINT"E# SCORE "SC GOTO 30日G
```



```
370 FOKE FW,55 POKE FOD+Z,13 POKE A1,81 POKE A1+Z,2 POKE F9,32
373 FEM [HDNE][24 CRSR RIGHT]
```



```
375 FOKE 54296,0
300 GOTD 295
999 FEM [CLR]
10@D FFINT'?"
1009 REM [GRN]
1010 FRINT"GINSTNTMCTINNS'
1019 REM [LGN]
1020 FRINT"I
10.30 PRINT +PRINT .PRINT:PRINT" KEYS FRE:="
1039 REM [RED]
1040 FRIMT
1050 PRINT"䌊 UP"
1055 PRINT
1459 REM [RED]
10G菌 PRINT"暞
106% REM [RED]
1070 PRINT'H
1079 REM [RED]
10G0 PRINT"fa
1469 REM[GRN]
1090 FRINT"G
1100 FRINT"#
1109 REM[GRN]
1110 PRINT"后
1119 REM[GRN]
1120 FRINT"绽
1129 REM [RED]
1130}\mathrm{ FRINT":A
1139 REM [REI]
1140 FKINT"#
1145 FPINT
1149 REM [RED]
1150 FRINT"ra
1160 PRINT :PEINT PRINT"\
BOWN"
    PRES5 RNY KEY TO CONTINUE"
1176 GET A金:IF G$=""THEN 1170
1179 REM [CLR]
```



```
1189 REM [5 CRSR DOWN]
```



```
1195 PRINT
```


## COMMODORE 64 PROGRAM

```
1290 PRINT" FDINND PILLS SCATTERED RROUND THE FIELU"
121ธ̆ FRINT PRINT" WITHIN THE TIME LIHIT. \IISFLAYED YOP" FRIMT
122(A PRINT" RIGHT OF THE SCREEN,.YUU SCORE TEN FTS" FRINT
1230 FRINT" FOR EVERY PILL EATEN .......... ":PRINT
1250 PRINT.PRINT" FRESS ANY KEY TO START THE GFIME"
1270 GET FS!IF R$=""TMEN 127日
128060TO 204
390И POKE 54296,15 POKE 54277,E POKE 54276,33 POKE 54273,10 POKE 54272,10
3010 FOR I=1 TO 109 NEXT PIJKE S4277,G POKE 54276,G PGKE 54273,0 FOKE 54272,0
3011 PL=FL+1:1F PL=G THEN 268
3030 GOT0 370
3990 RESTORE: PIKE 54296,15
4G10 POKE 54E77,9 POKE 54276,33 POKE 54275,1.FOR I=1 TO 10ज NEXT
4010}\mathrm{ READ A FEAD B IF B=-1THEN POIKE 54273,9 POKE 54272,0 GOTO 1
4U20 POKE 54273, A.POKE 54272, B POKE 54276,0 G0T0 4900
4030 DATF 8,147,9,159,10,265,10,295,8,147,12,216,8,147,34,175,-1,-1
5010 POKE 54296,15 PGKE 54277,190 POKE 54278,248 POKE 54273,1 POKE 54272,178
5019 FOKE 54275,129 FIR T=1 TO 370 NEXT POKE 54276,0 FOKE 54277,0 POKE 54275,0
5G20 GOTO 1
```



## SUPER SAVERS

## SPECTRUM

OMEGA RUN GIUG GLUG 01 YMPCS HJWG E FEVER SKU BAFREL DAOP CHJCK E FGG KAMAKAZI时ADK Allfy LIGHI CYCLE KOHE
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FALCON FIGHIEAS
FAOG RUN

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& \text { SKANBLE } \\
& \text { THE RTI } \\
& \text { IHE DUNGEONS }
\end{aligned}
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## PiKadee Software for ticvinvinil TI－99／4A

PKDE GRAPHICX（RFATOR \＆SCRFBNFIDHOK
ES．$\%$
This mably prased uth aly program makes the creation of graphica lima bitye
 INVERT and maty more．HCW No． 54 sade＂A Musi For al Ti Owners＇
 indisider foll inuructoons ant 3 sels of delmoglapth，
FKDA：MLSIC MAKFR by Dovid Marlin t t t 大 大 TI－LUDO by Roy fiolinnewprih
65.8

CHARSH．T ONE（EOAD

 evined theifferen ways Thes sall be played batk of in 1,2 or 1 womes or with an



 101）＂：

PKD3：RIV FTS！by Jomn Heworth
（HARWT TWO（PICA）
E4 9 馹
Atcade action wht $\mathbf{R}$ sex＇you have to phek hp all of the races left $y$ ne archurd by your workmates．The boss is liming you so you had betier be quick Bewars the baramin skirs and don＇s sum 100 gische es it＇s a long way down to the geround \＄skill levels． 21 flogrs．Timer＂This is a musi fot all game players．＂CHARSL7 TWO（PJCA）is the second off－the－shelf＂churacter bef for youz own games Instructions inciluded
PKDA ENCAPE FROM MICA：bv B lunoper
24，45
Th：the to be the moct addiche areade game yet for your unex il $\$ 9$ 4A
 collect valuable items from 3 tields．These fields are guarded by a Itrifyrng monster who eals people like you for dinner！！！The Count has given you 4
 levels．arimated runing good graphes．sound and a H gh Siore tabie Nol to be missed
All ctirgees，PO＇s etc

> PiKaDee Software
> 35 Parker St PRESTON Lancs PR22AH

# Spy's Demise T1-99/4A + Minimemory $\varepsilon 8$ 

Chalbenge, from Stamiess, 10 Alstone Rd, Stockport, Clieshure SK 4 SAH

This is the mactune sode version of the Extended BASIC game, and oddely enough easier to play You are sofl as the Lxraman diplomatic mission in Pyong. yang, and you must cross II floors mine limes, avoidnis patrollusig guards whule building up a coded message - the solution of wheb could wis you some soliware - and you sull Jse either keyboard or joystuck This time, howeve, the guards buince off the top and bottom floors unstead of wrapping round, whoh makes tife more difficull, bat your movement
control is far ughter, and when you itse the option to pause everythung stops, uralake the Evended BASIC version. It is shis, more thar anything which maket the gamte easser and because there is less frustralion, the enfoyment is greater.
Although there are really two games here - the on-screen batite with the guards and the code breaking - the code could easily be obraned in both versions. However, the game would hold your attention and interest in its own nght
The graphic display is very simular to the Exrended BASIC version, and shows belter than average control of sprites. P.B.

## anstrualions

plityathlily
graphics
value for money
$90 \%$ $100{ }^{\circ}$ 40010 85 年

## Thus package consists of three

 gamesLandet is, $\approx$ you can probably guess, the chassic moon landing game. It's badly umplemented and worst of all I found it impossible to land
in Squash you move a bat up and down to kecp a ball in sourt for as long is possible. Every tame the ball hus the wall, your score is incremerited No knok king down bricas. (iraphics and sound leaves a lot to be dessed and the game fiself ts unongenal and boring
in Raaders, you control a
lighter plane moving left and nght and shooting down the enemy planes which fly down screen Although simple in concept, 1 found this game surprisingly addicuve.
Since these are all wntien in BASIC-I to run in 4 K , the graphics and sounds are very crude compared with the cartydge games available What's more, they are all very thoriginal sad, with the excepison of the last one, very borms. Although together they only cost half as much as a cartridge, they are of very low quality and can nol be recommended very highly. S.s.
instifultons playabslay graphics talue for meney

## $x=x$

## Electrun <br> Dragon 32 ع8

## Tom Mix Software, 41 Truso

 Rti, st Alusell, Cornwall PLzs S, EThis package contsists of fous ashbgames for one or two players Which rasst be successfully fompletad before you can move to the next level.
L.ach player starts with four, lives. Between subgames a selecion board is displayed for" chores of game, Apparently yous can use the nglt or le lt joyslick athough I found I could use the right one
The four games are: Prachmod, in which you must reach your transporter in the centre of the sercen before yous are shat of
before the the runs aut belore the ime tuns out
Beam Buggy in which your buggy and the comptiters leave vapour trails. The First buggy to crask into these doses

Mare in which your fank must try to hit the contpulers three tumes before they destroy you
rorce Field in which you are lrapped ot a cylonder with a coliapsing rool. You must shool vour way through
Scores vary for each gume Exira live tore awarded for y reach certanif sceres.
Not very tmpressive graphits for games. Loading semmed to take a lang ture.
instructionts
playabilaty
igraphics
tidue for money

## Games, games and more games! <br> Here are five action-packed arcade games which have been thoroughly scrutinized by our expert reviewers. Read before you buy

## Galactic Encounter/ Checkers TI-99/4A £6

Sianless, 10 Alstome Rd, Stock port, Cheshtre SK4 5AH Gatactic Encounter is a modern version of OHhello for one or two players. In the ore-player version, the compuler takes the role of Eval Astex 99, who is righting you in \$sub Quadrani 4A. In the two-player version, player two takes the place of the compuier

The object of the yame is to capture the opponent's iroops. Thas is done by movang your troops into galaues adjacent to those occupred by the opponent The game finushes whea there are no unoccupied galaxies, or if estlver player has no troops lett. or if both players are unable to move
A clever graphtes effect is used 10 make the troops' eyes and feel move. I assume this is done by comalantly changing theur character codes

The tecond game on thw cassctic, Checkers, is a variation of the old strategy game of Soltanee, except that the layout used is an 8 죠 grid, with the centremost sixaten squares jeft blank

Stamtess is awarding a free program to the persoa who sends in a solution for Checkers before the end of the year. The prize wil. go to the best solution

Good valut
anstructions
playability
graptues
value for money
J.J
$75 \%$
$90 \%$
910 40
90\%

## Pengon Dragon 32 ع8

Microdeal. 41 Truro Rd, $\mathbf{S i}$ Austell. Cornwall PL25 515

This game for one player bas Pengon the pergtun lraveltug through the Ecy mazes trymb to avoid or consli the nasty sea beasts

There are five skill levels which goyern speed of play. You can choose black, buif or green background

Yout must guide the pengan through the we cube mazes. By using the fire button you can crush the cubes of push them a1
the nasties 10 sandwich them between two cubes. I never knew that pengums could be so victous, but if is a cease of you or them

There are three eastly xdentitrable analic cubes which cannof be crustred but can be pushed together for a banus of 1,000 povnts and progression to the next screen
At 10,000 points yatis get an extra pengum. The graphics are acceplable but itwas disapponnsed to fiad that Pengor does mot look much lake a pertian. The progratu boaded with no problems but it did take a long rame. Despire thas । cafoyed helping Pengon is hus travels and in hus right aganst
the beests.
J.E.M.
instructions
playability
graphics
value for money

# Unlock Your Imagination 



Scorl complle true Machne cope yo ivn Tol


 SPECTRUM SPRITES Today ormed noed eprite Ware se averylhirg you need to know ibout oberarwng , and handing eprtes, Al in a single pach win tull netructuprat Hendte ghilet simullingouth - colitation detection. trinherd


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DRAGOM MUMGRY MORACE. It has been satd that Horace games are in a class of thent own. In fact, Hordce is almost a legend. Hungry Horace the ong nal Horace adventure, is now avalable for the Dragon 32.


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Pamonichovery ran 'Supenor to any other adventure game." - Your comend The hothit is now avalable for the BBC, Onc, Commodore 64 and Spectrum.

H.U.R.G. A revoluthonary prece of software for your 48 K Spectivm which allows you to develop high quasty Machune Language afcade games with absolutely no programming expenence. It is ditticult to tind fault with such a complete games generation program." - Cont


COMMOGORE GA HORACE GOES
SKIING is the sequel to the very succassful hungry Horgea In this adventure our hero attempts winter sports. Shung is compreti whth slatom flags trees and moguls so watch out Horace' "One oil the most addictive packages yet encountered. - 2x comoulime Herace Eoes Skung now avaliable for Oragon



FORTH. Abersalt forth is an imprementation of the forth Language for your Spectrum 48K Forth is closer to Machne Code and more than 10 times faster than BASCC. "The only Spectum pactuge which has been endorsed by the Forth Interest Group

Snelnu User


CLISSIC ADYENTURE. This is the program that started it all fiow you can discover the excitement of Classic Adventure on your Spectrum 48K, Commodore 64, B8C of Electron Hyou are mastertul enough you too could become o Master ddventurer "The classic branteaser
wive mantur II serceilent but be wamed: It's aiso very addictnve."



MugSY gives a totally new direction for thril seekers comic annmation in tent. stunning graphies and a fuil arcade game Mugsy is your one and only chance to become the greatest gang leader with definte tal repute. "Da game Mugsy have, an dis 15 no lee da bes graphics eber seen on fa Spectrum da tre admospear ob da East side." - Murncime ming Mugy is also avalable for the Commodore 64 .


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ortaphomed tirowid on obi



## Set Adyenture 32N BBC E7.95

Virgin Games, 61/63 Portobello Rd, London 3H 3DD

You're in a great big mess here, so you have a lot of work to do 10 get yourself out of it Lindererred by threats of pirakes. ghost shlps and storms you have to find your way home.

The story so far is that your calamaran was holed by killer whaley. Fortunately you managed to launch the lifebost, and the game starts with you drifting in the sea, with the kask of returnug home.
This fartly stratghtrorward adventure includes a Mode 7 screen picture with each location, and you have the abllity to carcy
out instructions by using fust one key. Thus is obvicusty a great help to the inexperienced rypist, bui any regular edventura mil have typed N and pressed retum before he can remember you have to press fiunction key 0 to move nerth
I wes a latte disappointed that the gume meluded no SAVE opion, wheh 1 thought wer standiard in all advensures. Afier completars the advenuare 1 can say that it isn't very specticular. but 1 did enjoy the welcome hame.
M.B.
minstructions
ease of lise
$70 \%$
display
$90 \%$
yasue for money

## Wheels Sord M5 £5.95

CGL, CGL Hse, Goldings Hill, Loughon, Essex $1 G 10$ 2RR

Your are in the driver's seat of a rilly car and must finish a course in the the leass tume possible. The wutle character, which barety resembies a car, musi be controlled via the cursor keys or joypads Better key arrangement could have been employed and the insensitive joypads leave you frustrated
The screen depicts a forest (1) thank) and track. The car sparis from top left and yoa bave to negolate the $90^{\circ}$ turns. Whenever you crash the car, time is lost.

I could see that thought had

## Forbldiden Forest CBM 64 E8.95

Audlogenlc, PO Box 88 , kending, Berks

Thus eould be another winner from Audiogenic, who teems to conssistently being out only good software

The object is to fire arrows at various hostite creatures, The wounds 3nflicted are shown is quate good detali - not for the squeantsih.

The scenario is a forest. As you move left or sight using the foysuck the sereen scrolls frem side to side. When moving you tsee the display in a format wath near objects moving faster than distant objects.
As tume continues the moon rises and falls, screen colours change and stars come oul. This is a ntee touch which gives the gume variety.
The backing muste plays throughout, After if whle you ges lired of this; typical of mosit games

To play propesly you need a colour television of montor. When using black end white the shadea of trey tend to blend together.
incidentally, I though the bug in the screen with the dragon wasn'i very original. Qutite often the dragon splits isto two halves at about the place where the sprite MSB setangs oceur. K.L.

| snsiructions | $80 \%$ |
| :--- | :--- |
| playatuly | $79 \%$ |
| gruphico | $80 \%$ |
| value for money | $85 \%$ |

> Kaleidoscope of games

> This set of programs is as wide as it is varied. Take your pick and see what you can come up with

## Enigma 32K BBC 9.95

Branbox, 20 Orange $\mathrm{Si}_{\text {, London }}$ WC2H 7ED

Entgmat is advertyed dit "at new type of computer game based around a pack of cards. At the stan you select which one of five fote to play by, and then determine the nature of thas rule by playing the game

Qute simply you or the computer select "starl card" As the cards are played the computer will unform you whether it has been secepted or rejected according to the fule in use, and prestruably its relathonship to the start cert. Presumably because, durung two days, 1 fonled to disoover any of the rules.

The oniy complant I had about the mechanics was that the coder in which the cards were selested and whether they were accepted had to be written on a prece of paper and analysed later. It would have been a mace touch if there had been a pranter option to enabte the relevant data to be recorded sutomencally

Should you be the type of mental riasoch3st who can solve Rublk's cabe blandfold writh both hands ted then this is the game for you.
J.R.
instructions $7\left(1 \mathrm{H}_{4}\right.$
playabilits 6.50
graphes
value for money $\quad 6.5 \%$

## Battie Planet 32K BBC E6.95

ISP Marketing, Hzmpatead Hse, New Town Centre, Hasmpstoke RC.2: 11.6

The intay shown a never-endang trench seen from the cocespit of a spaceship. Entering the irench are alon craft, and the seene looks set for a space-age shoul 0 Ol
From the instructions I discovered that the Ifench was on the Battie Planet, and your mission is to launch one of three plassia bolss at the plane's vulatrable spol. This reminded me of a well-knowa film.

You miss shorten the distance beiween yourself and the targel, while fighang off sobot fighters. If you fasl to hat the fighter, only the shield can stop you being bombarded with an terergy bolt. After three of these you're dead Using the shield dyans energy and Tinally ends the game.
Expecting on Pight simulation in space】started the gante, but instead of tooking out from the cockpat any ship was a litte whate smudge at the bestom of the scretn. The alien vehules were equally boring, and shooting the thyy craft
Perhaps BBC owners tre sposht but I now expect more colour, excitement and better graphic definition from arcade games
M.B.

| instructions | $60 \%$ |
| :--- | :--- |
| playnbility | $40 \%$ |
| graphics | $30 \%$ |
| value for moncy | $50 \%$ |

playnbility $10 \%$
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## It loads Spectrums four times faster

 than an ordinary cassette player, uses standard cassette software. and has improved loading reliability.The new Sprint from
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# JSIVE•NEW PROGRAM PRARE EXCIUSIVE•NEW PR 

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The job may loox easy but only you know the hazards. Speed ng cars. cycl sts vicious dogs over-reacting in the transport cafe or one too many in the pub' A Trashmans sot is not an easy one Discover .lst how difficult for yourseif in TRASHMAN on the Commodore 64

ESCAPE \& 3D TUNNEL Commodore $64 £ 7.95$ each. Fol ow the thri Is'
What ies in the tunnel $s$ depths? Fly ing bats, leaping toads, scurrying rats crawing spiders and there may be more. Al appearing live in the dreaded 30 TUNNEL.
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GATE CRASHER - BBC/
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An intoxicating game for the BBC and ELECTRON
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If so this s the game for you it has none of these
GATE CRASHER is a game of skill and strategy that $w$ Il test your mind to the I mits. PLUS you wil also have the opportunity to WIN $£ 200^{\circ}$
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## ELECTRO-ART - Electron $£ 14.95$ <br> Tover losen

Create your own works of art with this s mple to use, yet sophisticated feature-r chart tool wh ch nc:udes a ful machine code Pa nt' routine a lowing you to co our fl. any shape ELECTRO-ART is supp led na box with a ful instruction manual.

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Battle the evil Wizard ve nor $n$ the caves of Mount Elc VELNOR'S LAIR is simioly the most en;oyab e adventure you wil play on your computer

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Follow ng h s success on the SPECTRLM. ELECTRON BBC, LYNX and DRAGON Bll the worm is now appearing in MiNED OLT on the ORC 1/ATMOS computers.

## COMING SOON <br> ANT ATTACK - Commodore 64 78.95 <br> The outstanding Soft Soild 3D graphics of the breathtaking city of Antescher are now avalable on the Commodore 64. Battle the giant ants to save your hero! <br> COMING SOON <br> FRED - Commodore $64 £ 7.95$

Action beneath the pyram ds! Feartess Ffed, the Intrep.d Archaeo ogist, searches the creepy catacombs below the torrid tomb of Tootiecarmoon'

## COMING SOON

## GAMES 84 - Spectrum 48K

From the advanced programming proect divis on of the SOFTWARE STUDIOS - GAMES 84, an Olympiad spectacular?

## ORIE PROGRAMS

No doubt you remember ait those TV commercyals when they show you the nasty things that can happen to your reeth when you ear too many sweets or don＇t clean your molars properly．

Well，this game brings aid your worst fear＇s about the state of your mouth to Life．The magic sword which is your one weapon agaunst the dreaded looth decay is your tube of toothpaste－and we have no references as to brand．As fas as thus game is concerned，any loothpaste will do the trick．

## Varinbles

X．Y plot tooihpaste
4X．SY plot sweel
$\mathbf{R}$ deide which will swees goes
N move firing paste
S aive score
D how many tunes sweet has bil teetl）
N general use
Q music

## What you have to do ts blast

 the malevelent marshmallows before they start eatung away at your teeth．The firs time they are successful mattackıng your fargs，your teeth get an attack of jaundice and turn yellow．If yout let them ncar your teeth a second ume，you＇ll lose all yous
## How it works

9－140 we up variabies 150－160 spectal POAEs $600-2000$ man toop $2100-2190$ fire routine 3000－3020 add score
16040－101s0 change teeth colaur
$15000-15100$ end $^{7}$
$20400-20310$ user defined graphics
300\％0－301150 set up screen $31000-31100$ mussis
lovely pearls and false teeth would be the only answer．

Press Q 10 move up，Z to move down and the space bar to fire．For some reason you only see half of a marshmallow when it moves－can you thank why th13 is？

There are 27 UDGs，and if you want to convert thes game to the Spectrum，you must ofm some of the graphes．The Oric uses an $8 \times 6$ gnd for tts UDGs．
The character stnng controls in line 30 switch the keyboard click orf．The ather one swreches the cursor off．The CHR strings（ $1-7$ ）plot certain colours in certan places．The Oric＇s screen is $38 \times 26$ ．If your computer doesn＇t have REPEAT．．．UNTIL loops， change these for FOR．．．NEXT loops．

## 9 DJMF： <br> 2lver <br> 23 a

30．PRINT CHR＊（6），CWR\＃（17）
190 TPF\｛1\}=*abcdef"


1 K CLSiPAPER 自：INC 7
141 INK 6 zJご！R＝
149 PGKE 4Bees，
 49：POKE 4BEQ日， 5 ？
 ，68：PCKE 48913，75
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 14）＊＂CONTRCLE
2！青 PLDT 1品，14，－1p．．．．．．．．．．．．．．．$D^{-}$

230 PLDT 16， 16, FIPE．．BPACK， $\mathrm{BAR}^{*}$
240 FOP $\mathrm{N}=1$ TO Se9日，NEXT N
250 Cas
2bs lik 7
500 EOTO 20000



ある地 K

Y＝Y 1；IF Y＜日TRENY＝B


bAB IF K



700 R＝fobt1
 gX＋12 IFE＞35TMENS $x=35$





 －IEIFSYく日THEM I


2100（1）
2109F（1）

712 A N－9：FEEEAT

2140 PLOT $N, Y+2, F=(2)$

2lb IF gCRN（N＋itylcン32 THEN COTD 30：00
2178 PLGT M，Y＋ 1 \％＂
2178 PLOT M，Y4．${ }^{217}$＂
2175 PLOT
$2: 76$ H－w＋1
2160 ghootalivtil $\mathrm{N}=37$
249 toto 746
togi ExPLODEIE－S＋I Ren


วอH MOT 以Y CY＋1－
3 O34 PLOT 5X，5Y41＊＊
3．10 5x＝361 5Y＝14
3029 E0T0 679
＂Bood 户1 OT $5 \pi, ~ g Y: "$

$18220 \mathrm{D}=\mathrm{D}+1$


## Attack of the marsh m <br> 

## ORIC PROGRAMS




```
+
    jPgeg if #>-2 THEN EOTO 15000
    10059 5x-3向:3Y=15
    MREITM
    1B140 日OT0 639
    15094 P.⿰力T O,b,*
    15010 PLOT E,2Z,"
    15a15 FOR N=1 TO 1000:NEXT N
    15039 CL5
    \square-C REPEAT
    TH
```



```
ETH'
    MEDI 5%1B,CHP& (b)->"PREES ANV KEY TO PLAY AGAIN"
    15aes MaIT 1FREG
    1549004 LNTIL KEY車<>"*
```



```
    15097 D-0
    15108 ClEARLRUN
```



```
    (4) -81) +7
    2mDIE READ PIPAME N,PINEXT N
    20,020 DATA 63, 35, 35,63,35,35,63,35
    200.38 OATA b3,63,63, b3,33,43,45,53
    2B040 DATA 5b,63,43,0, b3, क3,4,21
```



```
    20aty [:C-5,56,60,7,6z,62,7,31
```



```
    20.EE DATA 35,63,35,35,63,35,35,63
    20rav9 DATA 49,55,35,b3,64, b3,643,65
    2ate| DA+A 4,23,20,63, 63, 63, क3,54
    20112m DATA 27,27,27,65,63,63,63,6
    20120 DATA 6,31,6,82,63,60,36,0
    20139 DATA 1,63,1,3,63,9,0,8
    2田17B DATA E,3,7,3日,31,63,6,3,45
    2a1eq DATA 0,4e,9b,b1,bl,b2,b2,b3
    2at90 DATA (1,15,43,63,65, 43,43,31
```




```
    2ष220 - b3,63,b3,31,13,7,3,0
    2B2土0 DATA b3,b2,b2,6!,b1,56,4日,0
    2a242 DATA 31,63,63,43,43,63,15,0
    2a135b DATA 63,63,62,60,60,50,48,0
    2m25, DATA b, % 31, 31, 39, 4, 53
    2&270 BATA [8,0,56,62,62,57,3,43
    20280 45,45,45,45,39,15,3,8
    202906 DATA 45,45,43,45,4b,45,4日,0
    203gm DATA &,0,0,63,D,63,8,63
```



```
    30%tb REN F* SET LP SCREEN EL
```



```
    30G29 PLGT X,Y+1, CHR#(1)+7P* {2)
    3094% FOR N=23 TS 25
```



```
99048प4%"
$0065 M=\T N
    3006% MXT N
    30070 PLET
nopgnopm"
    300eg FOR N-3 T0 4
```



```
74949994"
    3^!G% WEXT N
```



```
    *911日 PMOT * CHR(%)
```



```
    3013年LET 日W*:13=***"
    3014% LET EN%(z)w"My*
```








```
    31G2% G-1&FEPEAT
    31030 A=ASC(M{D*(A*, (, 1))-47
```



```
    31gen PLAY 7,B,5,2x/m
    3!(0&& PusIC 1+5,a,13
    3:f7% m,9,1C 2,3,9,15
```



```
    31mes music 3,j,#,15
    31003 Halt 2%
    31894 0=0%1
    31%OS LNTIL O-LEN(AO)+1
```



```
    उ1IEa EOTM 69%
    32115 UNTIL N-LEN(A$)
```


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45．5


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## COMPETITION

Win a copy of the brilliant chart topper, Beach-Head, and an authentic American sweat-shist from US Gold, the distributors of top quality software in this country.

Heach-Head has been widels atelamed for 1ss vyid 3D graphices and dramalle sound effects. US dillbourd magazane voied at the best game on the Commodore for sound and graplucs and the all achoon game has been a contslans best seller in the States since it was released last November
Beach-Head costs f995 on cassette and 51295 on dxac
The secnarto consisis of a naval etygagement followed by tanks landing on a defended beach. The object of the garat is to take the chemy forkress of Kluun-Len
uS Gold is a new company, formed in February this year Launched by Geoff Brown, a former maths teacher and professional mustician, US Gold has negoltaled a series of licensing deals which enables the company to mitroduce the best of Americona sofiwate to terns sountry - w thout the sting of import pries
"US Gold has selected the very best of Ameritan sames, and is bringing them to the Uh ar normaz LKK praces, sald Gealf Brows "Because we can choose from so many different companies, we can release osily the hughess quallity. We will have 27 rop ranking Amencan tules on release by Christmas."
"Our company nante, US ciold. is renlly our scal of arproval" he tern mucd "These games ate solid sold
Also in the LS Gold range are Zaxxor for the Alari, whech was nominated as best arcade kame of 1981 th the Siates, and Dallas Qucsh, a hew release for the Commodere fst and At hn, avalabic Con dusc onls
"Other games based on Dallas have been pule umtations of the real thutits sadd Georf Browno "Thus \&

## Go for gold - win Beach-Head and an all American sweat-shirt from



IOO per cent Daklas production the Lorimat people, who made the series, did the graphses and wrote the storylane." Here's your chance lo strike oil and sefeat 18 orice and for al

All vout have to do to wen your own tape of Beach-Hepd and an LIS Gold sweat sharl is 10 find alt the US Goid tutles in our wordsquare Go for it

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## CS Gold lilles

Aztec Challenge Drultas Quest
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## The rules

Entnes will hot be secepted from employers of Argus Specialial Publicatrons. US Crald and Alaboster Publicatoons. US Crald Mid Alinbaskr
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M Erodeal(2) M trodeall10s Mierodieal (B) M House (4) Bertind it Oasls software ts Mastertronlc $1 \$ 1$ M Erodeall Microdeal 181



## U.S. SCENE

## It's playtime - with your video toys

I don't know of I hke the unplications of thrs, but, as Mr Spock would say, they are certandy fascmasmg. The well-known software firm, Epyx, is brunging out a comptuter video gome based on America's best selling fashon doll, Barbie. Children (presumably) will be able to dress Barbie, change the colour and siyle of her hair and creare different clothms outfits, jusi as they could of they had the "real" Barbse doll

Along the same hnes, Epyx 25 in the process of developmer another computer video game based on Marrel's Hot Wheels roys. Kids will be able to design thesf own cars, selectimg feorures such as body colour, chassis style, tynes, wheels and seors. And ar U that's nos enough, the same firm is also planning to bring out yet a third simtiar game. Based on the G. I. Joe (Barbse for boyss, ktds will have the opporrunty fo outfit the video soldter and send it info combas aganst nor-human enemues.

Epyx is planning to market these three games under the hanner of Computer Activity Toy with on tnitial verston avaluble for the Commodore 64 , followed laser in the year bs versions to run on the IBM PC, PCyr., Asari and Apple computers. The unts will cost abour $\$ 30$ each. in one sense, it will actually be cheaper for parents to buy the computer games than the actual toys upon which the games are based, but it seems to me that too much is mussmg for the games to be considered equivalem to the "real" things

After all, ktds will miss the factule and mampulatove phloyment of playing with three-dimenstonal objects. And beskes, fts really hard to take that computer whth you when you want to play with your soys outside. Not only that, but the whole concept of sharing your toys with frends will be loss, encouraging ktds so wolate themselves, and may keep them from developing necessary soctal skills.

Perhaps I'm just a real conservartve at heart, but the whote idea of video toys just leaves me cold. We'll see how these games do th the marketplace, and probably, in years to come, see whether my fears are groundless. Hmmm, I wonder

In search of a different display? Sharp Electronics fyes, those same clever Japanese folks' has recenfly unvelled a new full-size flat screen display which could uhimately find itself replacons conventional CRTS used in milhons of current computer work stations. The unt is capable of displaying a full 80 columns by 25 ines, can display graphics characters as well as text, and does so at a lotat thickness of less shon I $1 / 2$ inches

Like a standard CRT screen, the display gives off its own hight which overcomes the disadvantage of hiquad crystal flat panel displays, which require an externel sounce of tight in order to be seen. Although no price has been set, Sharp indicates that samples are avalable imntediately. The displays are capable of a 600 by 200 resolution, which is compatible, not by accidens. whth the resotution of she IBM PC. The units are reported so have good conirast and brightness.

Sharp is very enthussasic abous its new produch, indicating thas the company expects ts intual orders to come from a wirtual Who's Who of the computer industry. I know that they have been working on this producs for some time now, years in fact, so if they are ready to release $H$, Jam certan thar it will do the sob. We'll just have to wart to find out whether it will be abte to compete on the basis of price

Ouf of room again. See you next Tuesday.
Bud Izen, Fairfietd, Calfornia


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## Moneybox <br> Dragon 32 ［ 19

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If handing your money is ： problem then this could be the programs for you

Wratten to a very high standard，it offers you the ablinty to handle up to 100 cassette files， each one having up to 99 ＂periods＂with 100 transactors per period and 50 ＂accounts＂ These accounis allow you to keep full detarls of how much money is going where and you can aveu thange the gecersnt tules to make it completely persana．

Yod do have to have all the detats at your Fingertips as you
wese the progran bat it＇s far easter，though not necessarily quicker，than trying to do all this on piaper．If you beed summanes the printer routane can provide all the detail you requre
A very good feature us the extenswe error trapping and the use of promprs to tell you what type of upput is tequured in eack field The anly problems I have found are the program＇s unabilay to report file loading errors and abort in a reasonable manner and the usisal one of finding enough money to wark upon＇
instructions
ease ol das
Braplics
value for money

$9 \%$
$70 \%$
$70 \%$
85 明

## Oulckdraw 32X BBC $\varepsilon 6$

## electrve， 64 Brooks Rd Strem

 Somerser BA16GPPQuckdraw is angher on－screen panung package．It has all the usual fearures，e－z．the abilry ro SAVE and LOAD screers to and from tape of dusc and to durnp the fimshed work of art to a pronter

Qwekdraw anakes good use of the Beeb＇s futction keys， providing such facilities as ttrangle，circle and quazier circle drawing A function kev strap is provided with the instructions．

The Mode I screen is divided into two distinct areas．The top three lines provide information regarding the current cursor position and also the drawing
mode in use，e．s．Move，Draw， Triangle efc．This factily is very informauve but uniontunately this informaten is also dumped to the protetr during the printing of the picture．On the subtect of printing，the user must provide hos own scresen dump rourine and one tine of the program amended to call thus rotitine

Overalt， 1 found Quackdraw casy to use and capabie of produant some quite detalled displays．Do consider thes program if a general purpose artisicg package is what yut require

J，R
instrithons case of use display
value for money
600.0
$60^{0 \%}$
70 频
$600 \%$

## 

ISP Marketing，15a Cestons Yard，Basmgstoke，Hants

If you didn＇t already know character generators let you design graphics on in displayed B $x 8$ grid，place them on you chosen keys and SAVE to tape Loaded back with your program， the usunl POKE und DATA lines become recundant，sevang tame， effort and memoty．Here you can also desiga an aternatjue elaracter sel
A generator catne for free on the Horizons tape and magazane lisilitgs for these and alrernanve characier sets are everywhere．So why would you need thus？Sux pre－designed altermatue sets on side b might have been isseful but copyright is clamed－e surprise to other houses，whech have beens using them for years，and the printers who origunaly designed the type faces

The program is mainly in PMBASIC and poorly dkugned （\％）Yas are forced to go through the the erid screet ferection is by INPUT／ENTER Instead of a neypress．And there＇s ato casy exit to the menta on error．The UDG ops10n，by allowing athernative sel fispsay for modification，renders 1he Aharacter option superfluous －Thus badly peeds a doubie grad with a display of the ongmal for comparison．Altogether， unworthy of the publishers of a Scope and a ndaculous prace

## instructions

ease of use
display
value for money

## K

## Key Deflner nnd choructer 4vinvetat 

G．Soft． 18 Melbourne Rd Walihamstow，London E17 61 R

This package consists of tho programs．First we have a function key defining programs －to be honest thas is vers poor The average BHC awner coud whte of beter prograp durng hishler fiest week on the machine．As an example，one of the more technical key definutons actually allows the user to LOAD or SAVE cassett based programs al the press of a ${ }^{\circ}$

The second offering is a character definer．This program is slightly becter than the first，

# Take your micro seriously 

## Use these programs to broaden your horizons． Whether you want to design games，handle your finances or define keys，there＇s something for you here

 but 1 imagane it would probablyhave been reyceted had ft been submirsed for publication in magazine
The program onfy allows defination of sunple churacters and is unable to define muslitcosoured characters

Characters tire defined by riovng a cursof afound $3 n 8 \times 8$ grad of asterisks using the cursor keys．Usually when utsing character definer the cursor is moved to the requared position on the grid and the onvel then lit Not in this program Every time the cursor is moved onto a new square the pixel is automatically lif，so you spend most of the time crasing anwanted petels
insmentwons ease of use display
tatue for money
＋

－
ISP Marketang Hampstead House New Town Centre， Basmagroke RO21 ILG
Avarlable on casterte or - al I 1 more－on disc，Scope comes un a vider－type box with 贯 imar！ spiral－bound manual，and
 ihat is

Thas is really anw language and compiter．It enabies you to write sotund and graphits rouimes which can be commiled into machane code and thell rall madependeatly of the scopre the Scope commands cover sourd，low resolution graphics and sprites．High resolution graphes aren＇r supporred，whels is a great shame．The commants are writen in BASIC REM state－ tnenls．Command Words are simblar to those used tat BAsic． but the siructure of the lenguagk seems to be closer to thal of arsemblet
Seope provides an easy method of wriling machane code routines to speed up the operatnog of BASIC programs， but is limutions twould make is diffitule to use for writing a complese pragram of any complexity．Only tilleges vanables are supported－no storge－and thathemaltcal functions are limated to addthos and subiractoli
An intereslang utily，aud oane that＇s well worth looking at if vou don＇t want to bother learning machume code．M．N．

## instructions <br> ease of use

display
value for moner

80810
$75 \%$
N／A


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Teach young chsidren to count at the same tume as makutg them aware of computers and tntroducing them to the keyboard．

In this game the chald must count the number of muce whech are generated at random on screen，Each cortect answer allows the random number generator to produce larger numbers．
Your pupll＇s score will be recorded，as will high scores． There is also an option for lurang off the sound，if it begins to grate on your nerves

## How litworlss

40 disables break
60 jurn on solitid
30 tura off cursor
80 efror tzapping
INO disable encape
110 derine charaiters
120 define sound envelopes
130 give instructions
140－150 sel variables
160 call man game
180－370 defitte ustr graphes
3511－420 define envelopes
4，30－520 draw board
530－560 draw molise
370－640 traw cul at location

650－680 draw eal in correct location
690－820 graphics
日30－11180 win prosedure
$10 \% \mathrm{ll} 150$ end of pathe
1160－1140 error trap
11901380 instruclatrs
1390－1518 lost game
1590－1830 main game control

X 監，Y\％Varlables
$\mathbf{X} \%, \mathbf{Y} \%$ co－ordinales for screen graphtes
$\mathbf{5} \%$ number of atnmals（answer）
M献 your score
N Whagh score
T\％random number
number \％your guess
Com， $\mathbf{D}^{\circ}$ 有 control variathies

## Develop children＇s numerical skills with this program by Steve Lucas

## How many



Hinti ob conversium
Convertang thus program to mun or other systems woutd be very dificult but the Followang hasls stould thelp
－Replace all REPEAT UFTII loops with condtaonal GOTOS －PRGC edures will need to be replaced with GOSL $B$ and END． PROCI with RETLRNs．Paxsing variables to the PROCedteres wili fequirt uaing LET statements before calling the subroutmes
－You will need to generate board of $12 \times 12$ squares useng the Bppropriate graphot commands for yous machine －User deftned graphtes will need to be chateres to suli，as wilt the sound effects．

## NPROGRAM

## odents <br> 

360 VDU19，0，3，0，0，0，19，1，6，0，0，0，19，2，1，0，0，0，19，3，4 ，0，0，0

370 ENDPROC
360 DEFPROCenvilaper
390 ENVELDPE 1，1，1，0，0，200，6，0，121，0，0，$-126,126,124$
－ENVELOPE $2,1,-7,7,0,10,10,0,126,0,0,-126,126,126$
A30 ENVELOPE $3,1,36,-36,0,20,20,0,126,0,0,-126,126,2$
26
HIT Ex．
430 DEFPRDCtard
440 acalot 1
440 acalat
460 FOR Yxeo TD 100 日TEP 150
460 FOA $\mathrm{XX}=0$ TO 900 日TEP 150


$0, Y x+751$ PL $\triangle T E S, X X+150, Y X+150$, NEXTXX，$Y X$
 DRAMO， 0

```
490 MEVEO,770, DROW970,770, DRAN970,0
500 VDUSI HOVEIO0,1000, PAINT"MawE Count"I VDU4
mall vou 2',31,31,39,0
ENDPROC
DEFPROC-moumetyx,yx, 2x
,yx,2x
340 VDUS
S50 HOVE,KX,Y%,GCOLO, 2x,vDU240,242,4
HE ENDPROL
GM DEFPROCcst{x%,rx,2x)
```



```
245,246,247,41 ENDPROC
590 DEFPROCCman (tx% YX, ZX)
$00 VDUS
$10 MONEXX,YK
a20 BCOLO,2x
b30 U5N 248,247,10, 1, 4,250,231,10,8,日,252,253,10, 6,8
,254,255,4
"m M-ywa
[11 DEFPROCmOV
660 PROCtat(Cx*75-7B,味75-5,2)
EmI EDUND 1,\,160,10
ENDPROC
400 REPEAT
700 A&-DET:IPRINTYAE (2,4);A*
710 [X.NABC {A*)
720 LNTIL Cx>64 ANb [K<77
730 Cx=C%-64
740 REPEAT
700 P&&NTTABt3,4):&pCb
750 P&RINTTAB:3%4)よFC*
```



```
770 DX-VML, &R#|IFDX>13 OF
```



```
(239)1%目枟
ECN PROC=0ve
910 b*="*
920 mevmon
F00 DEFPROCW{n
##01 HX=HX-10
850 IF HK<1000 THEN NT=1000
mim Cla
[DO HESTOFE
B40 FORM=1TDO
EMO READAK,G%,Cx
NH}\mathrm{ PROC=An(ax,bX,cz)
910 NEXT
920 EOUND 1,2,295,50
830 DATA 1000,1000,2,1000, 150,2,150,1000,2,150,150,2
400,700,3,800,400,3
```

```
WM
4DUS
```




```
MOVE 15
1F MXYNE THEN NXEME
1F MX\NE THIBN NXPH音
TX=TX-1:
```



```
#%
VDL2S,1,O%O+0,01
RFPEAT
UNTIL EET=32
m0
ENDPRROS
H
Nove
MOVE 200,600
PR!HT"日 p d d b Y E."
VDU 4
ENS 
    CNDPRDC
```


1180 Em
Ent

1290 巨L
1210 PRINTTAB (15, 2) "Mous롱 Courtw"
1220 coloun

1240 DIDCOM 3

,
1260 (DCDI
1270 PRINT*"ewThe gate kgope thigh mepre to bett k"
1200 NOUT
$12 \% 0$ PRINT" "-Each tied Ypu get it Fight, the
questions will ott harder !"
1300 FOLDNA 2

1330 REPEAT


1350 IF A

1370 REPEAT LNTIL 郎T $\$ 2$
I $\quad 1$ CLBIENRPRTC
KIm DEFPROCICH
IEn 愔=10000
1410 CL日
1420 COLDU
1450 PRINTMGorry***thera" ' Mmore"
1440 DANBEA
1450 FINTI
1480 COLOUR
1470 PRINT **nimple"
480 bund i,3,140,50
490 (1)


1510 vDUR3, 1, O1010, Of
1520 DL2
1550 yewt여눈


1560 N.

1570 VDUS
1570 VOU

1800 日te0
1410 REPEAT
1620 PROCithard

${ }^{2}$
\% 1640 CaLOUR3

1450 PAINTTAB
1640 CDLOLR 2
1670 PRIACT N
1689 日K=0
1689 EX=O $C \times 1$ T0 12
1700 FOR $0 \%=1$ 10 12
1710 TKーFND代ス)


x.75-7B, pxe75-s, cal oum
1730 NExT px, Cx
1740 IF qx=0 THEN $16 \% 0$
1750 1F \$x
1750
1000

1740
$7^{17}$
1770 VDU 25,1,0401010
1780 RIPEAT
17 BO FIPEAT
$17 \% 0$ PRINTTAB(2,25)



1830 UNTIL FALEE

## tters Letters Letters Letters L ers Letters Letters Letters Let



In seply to Phap K Kh letter in HC Wh 6．．Io ate inn the foldith poece of strall in Abikcimst，ywu mast $\Gamma \mathrm{m}^{\prime} \mathrm{k}$ up the tead and transform it into gold，using the translorm spe．
Grant asks how to ket directly below the security gudrds in Jet fet Hils Ithe answer is 10 go through the kitchesas，down the batk stalrwaly and through the wire celar A secret mastage in the forgotien athes leads to below the sectarty ylard
May J a so congratulate the new software house Michatel Horgan Goftware on lis stiperb new pame caliod Jackpot．
Iver Prasi，Richmord． Alifres
sympathise with $\overrightarrow{R J}$ Wacek＇s Oric load ng prohlems $1 H C W$ fis because I have had thas problem myself
crocriencer huwerer showed that the problem was not with the Oric asenf bul with con palabilly between the Oric and varmus wassette reworders found this out the hard way．
After buying my Oric 1 found［ wanied a new cassette recorder to load and save with，as I feared the ald＇radio cassette
recorder 1 was wetog fwith about an 80 per cent succers rate）might ruin my toper．t bought a complet－compat to cassette recorder from in H Smilh but found this did nor wark with the Oris I then pard a bit extra for the H H smith data reworder bil this was a anplete lialure wath the Cric 1 obtasined a refland from W H smah iesen moss wimetgity ald went to an Gric moshist who recommended the parra soti－Program Reworder
 4． 41 but hise been woult evers penns herause it loids and wases with greal tive over a wade ratrge of volume IEter

Ms adice to aftrone bunnga anselte lo uxe wilh the Or：wetud be to mathe site t a wotipatible metare vou but t iperhapy even lake bots Oris with bou tu cit get a refand if It＇s net wonpalable Thas was lle prohlemis t entuontered should be spared．
F Robsan，（hopwell，Ithe and thear


Did you know that your QL is tapabe of priming 246
 Thes，asheved by danHe a atrate ellect，it zitermate co Dured puck

Try this ymal program
10 VIOIJE \＆PAPER 0
20）Fork $a=0$ to 19
30 FOR $0=0$ to 15
$40<+C+1$
90）INK
（0）FIII J ELIIPSERます
70 FILL 0 ， $5+10$ ， $15,2,0$
80）NEXI\＆NEXT a
Thes produces 256 difterently soloured ellimes anrans lite itseen
Nafe：The foll must be switched off and on belween eash alame in as oud rumn fap logether Rnherl J．Iorke，Bradford， Weat Yorks


J＇ve been hasing a lon of Frouble with my Spectrum kestroard Seseral muntrs ago 1 ritted a tok upgrade to my computer，but in 50 do ng 1 shaghts strelehed the ribbon cable whech is attiched to the keyboard．

Soon afterwards the symbol shat key sarted to become difficult to use． 1 had to press it jusi Pight to get is to work，and some－
tones it wouldn＇t work at all Then my problems really began．

The B．${ }^{2}$ and $\$ 1$ kew also became hard to ure and the protiem got so bad that I had to pi se oft the kes buards protectise cosering to have a look as the renser pad and see what was wrorg The wemor pad was apfatemts tatsing the truable and dint hork wasce of the kiring mavt Mave whe letove wisen I lixed the uggrade thenath
The prohlem ger mond that it had to send ms Sperfumita a repart fom The rostectace wheriny was alse hadlt damaged and wouldnift on properit
I montuna the that mis the eld ot mbstuta bis Irend Ne：l ano hav the sistice probletm with hor spectict with ithe chesptom that on tha don I fundetm ate the 1 （）kev I atole $\ddagger$ lake now vamputer hash ta but dit es the puaraptee had ended， but Ne．s mudel is onlt 10 fuereths ofd and he had neser ofened the hes bughod He if ed to rathe if bilith to Berts，where he thaghit it that they ansisted they woutd have put estamp on it of thes had mold it and site Aell＇s mectrum dedn＇t have a sramp，he colosidn：do anyth ne abmal it
I alwo hnow of amsther person whove hesberard ．s pideing up That trme it s the B her whish wot I work Perhaps son＇a a few mure of his keys 4 II cease morking

Comsidering I onls know aberet 10 peoric who ant Spectrumb，threc obt of 10 is at very htph percentage． 1 in sure 4 àus be a bery Enmmon probtem amarg Spectrum owners who hate had lhere computers for aboul eght months or more

I would like to know if amone knows why we therdeg have tha protiem and how we can solve it if not，it＇s about time Sinclatr Research did somethins almout if．
10 Onden，Middlesbroagh


I hase nollied that wery few Jetters come from the grearer part of fiotland （the Aberdeen area）．Yes， we do have computers in this part of the world．So I＇d like to express my opibion．
I am stels and tred of people shaggang off other
cornputers．I don＇t want to heas a BRC owner ruanang down a Commodore or Spectrum，or vine versa A computer ds a completer and it onlt doce What it is
coeciled to do The all hase RAN and ROVI anj hertoards amonesl of her imiles：
I（inn a apectrum and I hate no complathos athat at bometames I would like 10 own other computers thalle to thase nho are pul olf the the spents Letheard＝ 10 intest evira auth ir at inplewrtet－vile hebroard Theresere plenty
st woue from
Apart tran lhe kes moard the spectrum is a gend mashote for the proce tos wht need in limeh at fither I as let bet h．If afta appetanc ith capstry bex

1 fead atite lettes an HC W in whet the author
comp a ned that hame
 fur gamer slaving I zyerec with jhis gersitu sume people think a computer is ponls capahie of padsme kantes It s about tone thes ame to therr sence and ressed that whmpaters aren＇I fas lor ambatment Alter asl the first chupiter wasn＇t buill in order to puly games
I have a suggesion far gofiware howes Why not hate programs like stuat Henry s Purgary，but with general hmanledge and thort＂Weve seen these proveramb for somesg chudren and show pupla doring rebision $n$ der theof e，ald I mean those ores the age of 2 ，would alon like In，wort of thang
We have plents of 0 yht fimulatens for rimates． so how about beluopter smbal ofs．where you could have groand attake， fis belween he hopters and oil rigs，or even more demanding，land on ships in rough seas．So come on， yny sofiware touses．Why not recease these sorts of programs？
Please could someone tell me when the Upstream Midi Interrace will be asatabue for us murctans who would Ine to commed ardanary msarmments intough a campurer and get interesting cffects

Just in closing，itwould hike to give my worgratula thens to Absedern of far winnung the Premuer cham－ monship and the fuati at cup．Good luck nex season，boys．Thanks 10 HCW for a greal mag，keep up the sood work＊and please supply us with more pulary programs．
Chow，Petertend，Scothad


#### Abstract

In I am appealing for advice on the advenure game Prate Cove for the Yif 20 and BEC l＇ve had is about fise montus and ！s II can＇l get tery far fhe farthest］ san pet sto an and whers ven land on a satidy beach 1 wall then colest a few thengs bald can I fall ant Lse for Ithem J can collew $54[\mathrm{Cl} 3$ crasters，beytle oi rum，  hamomer，po of mals mongmore and a kowed Llest Jleine chtad someone help tere with mis quest 4 Ward．Hplifina


froud like to Iell rou how mash I soue halla lbue hy Durell moltware the सtiphow are wondesfal l she the wav lits لharks turn round

The game es very hard but In a pleasure watar That
 Abratulaber ar：d tu．iors lihe ． 1

I like adventure ganes and I hase a rew，My farcurites are the Hobbit， seatich for the Hols Grat and（astle of Doom My Dad bouth！the Habby！ brok whinh herges sois $\boldsymbol{1 1}^{\circ}$ tert gond ta．ue fer meney 1 love your mads I has writen to wou befare think more elirk shoud hase compures If anvont Thirmarg of hlvire compu，er，buy a spectrum Kellv Roblnern，Finchley Lendon

Eend your Inttern to Letters，Mame computint Weelry Moil Coldensquaru， Londen win sac． pon＇t forpet to name yaureomput－ er－the bant Iotter could win ts－worth OF EOFIWHra．Got on probltar with your microy we＇ll geon Be gtarthy auepies poga，e al mwestonc to甲ueples ot the


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[^1]:    
    2 IF SC3HI THEN HI＝SC
    3 SC＝0
    $11 A \theta=1601$ $A 1=1602 \cdot A 2=1603 \quad A 3=1604 \cdot A 4=1605 \quad A 5=1606 \quad A 6=1607 \quad A 7=1698 \cdot A 8=1699$
    12 A9 $=1610$
    13 PFINT＂
    
    20 FOR I＝1 TO 5：PRINT：NEXT
    29 REM［RED］
    30 PRINT＂：「へ！へ1ノ「ワ＂
    39 REM［CYN］
    4 FRINT＂
    49 REMELRE］
    50 PRINT＂西
    59 REM［RED］
    69 PRINT＂？
    69 REM［REI］
    70 PRINT＂： 1
    79 REM［RED］
    80 PRINT＂！
    90 FDR I＝1 TO 5．PRINT：NEXT
    18 PRINT＂E PRESS FNY KEY TO CONTINUE＂
    110［JET f\＄：IF A\＄＝＂＂THEN 110
    120 FOR $I=1$ TO 3．PRINT：NEXT
    130 FRINT＂DO YOIJ REQUIFE INSTRUCTIONS（Y OR N）${ }^{(Y \prime \prime}$
    135 GET A \＄
    149 IF $8 \$=" N " T H E N 200$
    159 IF A\＄
    169 GOTO 135
    290 PRINT＂J＂
    210 FOR $I=1554$ TO 1103 FOKE $I, 160:$ POKE $I+Z, 6$ ．NEXT
    220 FOR $\mathrm{I}=1103$ TO 2023 STEP 40：POKE I，160．POKEI＋Z． 6 NEXT
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    249 FOR $I=1984$ TO 1054 STEP－4日：POKE I，16日．POKE $I+Z, 6$ ．NEXT
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